

**Claims**

We claim:

- 1 1. A method for using special comment language to augment  
2 functionality of a program language architecture, the method  
3 comprising the steps of:  
4     reading from a storage media, a program listing for  
5 performing a basic function in a first executer;  
6     detecting in said program listing, a special comment  
7 identifier by analyzing a standard comment statement in said  
8 program listing;  
9     interpreting contents of said standard comment statement as  
10 a special comment language statement when said special comment  
11 identifier is detected in said standard comment statement; and,  
12     performing said basic function and an optional function  
13 according to said special comment language statement in a second  
14 executer.
- 1 2. The method according to claim 1 wherein said special comment  
2 identifier comprises a predetermined field left justified in a  
3 standard comment format.
- 1 3. The method according to claim 1 wherein said special comment  
2 identifier comprises a predetermined field right justified in a  
3 standard comment format.
- 1 4. The method according to claim 1 wherein said special comment  
2 identifier comprises a physical location in said program listing.
- 1 5. The method according to claim 1 wherein said special comment  
2 language statement is context sensitive.

1 6. The method according to claim 1 wherein said function  
2 comprises definition of a variable.

1 7. The method according to claim 1 wherein said function is  
2 simulation environment criteria.

1 8. The method according to claim 1 wherein said function is  
2 specification of type.

1 9. A method for assisting a user in editing a program wherein  
2 said programming environment supports special comment language to  
3 augment functionality of a program language architecture, the  
4 method comprising the steps of:

5 analyzing in a program listing, a programming statement  
6 entered by said user to determine if an optional special comment  
7 language function exists for said programming statement;

8 determining if said optional special comment language  
9 function should be added to said program listing; and,

10 adding said optional special comment to said program  
11 listing.

12 10. The method according to claim 9 wherein said determining step  
13 comprises the further step of displaying a representation of said  
14 optional special comment language function to allow said user to  
15 select a special comment indicating said special language  
16 function to be added said program listing.

1 11. The method according to claim 10 wherein said displaying  
2 step comprises a separate window concurrently displayed with a  
3 previous window.

1 12. The method according to claim 10 comprising the further step  
2 of selectively displaying a help assistant message for said

representation of said optional special comment language function.

13. The method according to claim 10 wherein said representation of said optional special comment language function comprises a graphical image.

14. The method according to claim 9 further comprising the step of highlighting a portion of said program listing wherein said portion comprises said programming statement.

15. The method according to claim 9 wherein said analyzing step further comprises analyzing the context of said programming statement in relationship to said program listing.

16. The method according to claim 9 wherein said optional special comment comprises a specification of type.

17. A system for using special comment language to augment functionality of a program language architecture, the system comprising:

means for reading from a storage media, a program listing for performing a basic function in a first executor;

means for detecting in said program listing, a special comment identifier by analyzing a standard comment statement in said program listing;

means for interpreting contents of said standard comment statement as a special comment language statement when said special comment identifier is detected in said standard comment statement; and,

means for performing said basic function and an optional function according to said special comment language statement in a second executor.

1 18. The system according to claim 17 wherein said special comment  
2 identifier comprises a predetermined field left justified in a  
3 standard comment format.

1 19. The system according to claim 17 wherein said special comment  
2 identifier comprises a predetermined field right justified in a  
3 standard comment format.

1 20. The system according to claim 17 wherein said special  
2 comment identifier comprises a physical location in said program  
3 listing.

1 21. The system according to claim 17 wherein said special  
2 comment language statement is context sensitive.

1 22. The system according to claim 17 wherein said function  
2 comprises definition of a variable.

1 23. The system according to claim 17 wherein said function is  
2 simulation environment criteria.

1 24. The system according to claim 17 wherein said function is  
2 specification of type.

1 25. A system for assisting a user in editing a program wherein  
2 said programming environment supports special comment language to  
3 augment functionality of a program language architecture, the  
4 system comprising:

5 means for analyzing in a program listing, a programming  
6 statement entered by said user to determine if an optional  
7 special comment language function exists for said programming  
8 statement;

9 means for determining if said optional special comment  
10 language function should be added to said program listing; and,  
11 means for adding said optional special comment to said  
12 program listing.

1 26. The system according to claim 25 wherein said determining  
2 means further comprises means for displaying a representation of  
3 said optional special comment language function to allow said  
4 user to select a special comment indicating said special  
5 language function to be added said program listing.

1 27. The system according to claim 26 wherein said displaying  
2 means comprises a separate window concurrently displayed with a  
3 previous window.

1 28. The system according to claim 26 further comprising means  
2 for selectively displaying a help assistant message for said  
3 representation of said optional special comment language  
4 function.

1 29. The system according to claim 26 wherein said representation  
2 of said optional special comment language function comprises a  
3 graphical image.

1 30. The system according to claim 25 further comprising means  
2 for highlighting a portion of said program listing wherein said  
3 portion comprises said programming statement.

1 31. The system according to claim 25 wherein said analyzing means  
2 further comprises means for analyzing the context of said  
3 programming statement in relationship to said program listing.

1 32. The system according to claim 25 wherein said optional  
2 special comment comprises a specification of type.

1 33. A computer program product comprising a computer useable  
2 medium having compute readable program code means therein in a  
3 computing system for using special comment language to augment  
4 functionality of a program language architecture, the computer  
5 readable program code means in said computer program product  
6 comprising:

7 computer readable program means for reading from a storage  
8 media, a program listing for performing a basic function in a  
9 first executer;

10 computer readable program means for detecting in said  
11 program listing, a special comment identifier by analyzing a  
12 standard comment statement in said program listing;

13 computer readable program means for interpreting contents of  
14 said standard comment statement as a special comment language  
15 statement when said special comment identifier is detected in  
16 said standard comment statement; and,

17 computer readable program means for performing said basic  
18 function and an optional function according to said special  
19 comment language statement in a second executer.

1 34. The computer program product according to claim 33 wherein  
2 said special comment identifier comprises a predetermined field  
3 left justified in a standard comment format.

1 35. The computer program product according to claim 33 wherein  
2 said special comment identifier comprises a predetermined field  
3 right justified in a standard comment format.

36. The computer program product according to claim 33 wherein said special comment identifier comprises a physical location in said program listing.

37. The computer program product according to claim 33 wherein said special comment language statement is context sensitive.

38. The computer program product according to claim 33 wherein said function comprises definition of a variable.

39. The computer program product according to claim 33 wherein said function is simulation environment criteria.

40. The computer program product according to claim 33 wherein said function is specification of type.

41. A computer program product comprising a computer useable medium having compute readable program code means therein in a computing system for assisting a user in editing a program wherein said programming environment supports special comment language to augment functionality of a program language architecture, the computer readable program code means in said computer program product comprising:

computer readable program code means for analyzing in a program listing, a programming statement entered by said user to determine if an optional special comment language function exists for said programming statement;

computer readable program code means for determining if said optional special comment language function should be added to said program listing; and,

computer readable program code means for adding said optional special comment to said program listing.

1 42. The computer program product according to claim 41 wherein  
2 said determining means further comprises means for displaying a  
3 representation of said optional special comment language function  
4 to allow said user to select a special comment indicating said  
5 special language function to be added said program listing.

1 43. The computer program product according to claim 42 wherein  
2 said displaying means comprises a separate window concurrently  
3 displayed with a previous window.

1 44. The computer program product according to claim 42 further  
2 comprising means for selectively displaying a help assistant  
3 message for said representation of said optional special comment  
4 language function.

1 45. The computer program product according to claim 42 wherein  
2 said representation of said optional special comment language  
3 function comprises a graphical image.

1 46. The computer program product according to claim 41 further  
2 comprising means for highlighting a portion of said program  
3 listing wherein said portion comprises said programming  
4 statement.

1 47. The computer program product according to claim 41 wherein  
2 said analyzing means further comprises means for analyzing the  
3 context of said programming statement in relationship to said  
4 program listing.

1 48. The computer program product according to claim 41 wherein  
2 said optional special comment comprises a specification of type.



1 49. A system for performing a basic function according to  
2 statements in a program listing and an optional function  
3 according to special comments in the program listing wherein the  
4 optional function is not required for performing the basic  
5 function, the system comprising:

6 a storage media;  
7 a computer processor, connected to said storage media;  
8 a program listing stored in said storage media comprising  
9 said program statements for performing said basic function and  
10 said special comment for performing said optional function; and,  
11 an executer program in said computer processor performing  
12 said basic function and said optional function according to said  
13 statements and special comment.